Dart Aerospace Ltd. Thursday, 11/9/2006 4:37:15 PM User: Kim Johnston **Process Sheet** : SADDLE, OUTBOARD, RH, 206 : CU-DAR001 Dart Helicopters Services **Drawing Name** Customer Job Number : 29389 : 10523 **Estimate Number** : D26652 Part Number Al4: P.O. Number : D2665 REV. C S.O. No. : NIA **Drawing Number** : 11/9/2006 This Issue : N/A **Project Number** Prsht Rev. : N/A : MACHINED PARTS **Drawing Revision** First Issue Type : 28602 Material **Previous Run** Each : 11/28/2006 Qty: 12 Um: **Due Date** Written By Checked & Approved By Removed P/O for Powder Coat - in Comment house process EC **Additional Product** Job Number: Description: Seq. #: Machine Or Operation: 7075-T7351 2X6.25X7.875 D6101003 1.0 Comment: Qty.: 12.0000 Each(s) 1.0000 Each(s)/Unit Total: 7075-T7351 2X6.25X7.875 Grain Along Long 7.88 Length Cut Size 2.0" x 6.25" x 7.88" HAAS1 2.0 Comment: HAAS CNC VERTICAL MACHINING #1 1- Program batch number ( 2- Machine Step # 1 of Folio and visually inspect as per attached Dimension Sheet 3- Machine Step # 2 of Folio and visually inspect as per attached Dimension Sheet 4- Machine Step # 3 of Folio and visually inspect as per attached Dimension Sheet 5- Deburr MILLING CONV. CONVENTIONAL MILLING MACHINE 3.0 Comment: CONVENTIONAL MILLING MACHINE Machine Keyway and inspect per attached dimension sheet INSPECT PARTS AS THEY COME OFF MACHINE 4.0 QC2 Comment: INSPECT PARTS AS THEY COME OFF MACHINE 5.0 OC8 SECOND CHECK Comment: SECOND CHEC 7 12

Page 1

<b>Dart Aerospace</b>	<b>Ltd</b>	e L1
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W/O:			WORK ORDER CHANGES		_#_	٥٠.		
DATE	STEP	PROCEDU	RE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	*Approval QC Inspector
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Part No: 1265-2 PAR #: 11 Fault Category: Pod / Machine Ports NCR. Yes No DQA: Date: 06/11/28

QA: N/C Closed: 11.28

WORK ORDER NON-CONFORMANCE (NCR) NCR: 29387 **Corrective Action** Section B **Description of NC** Verification **Approval Approval** DATE **STEP** Sign & **Action Description** Initial Chief Eng QC Inspector Section A Section C Chief Eng Date Chief Eng CRUSSTURE-TO-SADDLE HULES Dug dues not match SHOULD BE DRILLED BO.316-06.11.10 06.11.10 tooling / program 86/11/22 66,11,10 TOUR RAD IN POLKETING OF FLANGE SHOULD BE RO, 188. QSI 64Z 45) 4/Z SEE MARKED UP DUG SEE DS EMAIL the shid bolt face are destroy and replace

outilized to their of .030" Site to one outilized of 11/22 outilized outilized of 11/22 outilized outilize

NOTE: Date & initial all entries

Thursday, 11/9/2006 4:37:15 PM Date: User: Kim Johnston **Process Sheet** Drawing Name: SADDLE, OUTBOARD, RH, 206 Customer: CU-DAR001 Dart Helicopters Services Part Number: D26652 Job Number: 29389 Job Number: Seq. #: Description: **Machine Or Operation:** HAND FINISHING RESOURCE #1 HAND FINISHING1 6.0 Comment: HAND FINISHING RESOURCE #1 Acid etch and Alodine as per QSI 005 4.1 POWDER COATING 7.0 M102391 Comment: POWDER COATING Powder Coat White Gloss (Ref. 4.3.5.1) as per QSI 005 4.3 QC3 8.0 Comment: INSPECT POWDER COAT PACKAGING 1 Comment: PACKAGING RESOURCE #1 Identify and Stock Location: 10.0 QC21 Comment: FINAL INSPECTION/W/O RELEASE c Loce14128 Job Completion

Dart Aerospace L	_ta
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W/O:			WORK ORDER C	WORK ORDER CHANGES							
DATE	STEP	PROC	EDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector			
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Part No	): 	PAR #:	Fault Category:	NCR: Yes	No DQ	<b>A</b> :	Date:				

QA: N/C Closed: \_\_\_\_ Date: \_

NCR:		· V	VORK	RK ORDER NON-CONFORMANCE (NCR)					
		Description of NC		Ī	Corrective Action Section B	Verification Section C	Approval	Approval QC Inspector	
DATE	STEP	Section A	Init Chief	<b>ial</b> Eng	Action Description Sign & Date		Chief Eng		
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NOTE: Date & initial all entries

DART AEROSPACE LTD	Work Order:	29389
Description: 206 Saddle, Outboard, Right side	Part Number:	D2665-2
Inspection Dwg: D2665 Rev. C		Page 1 of 1

Inspect dimensions highlighted on inspection sheet drawing D2665 Rev. C and record below:

				ightod on mope		corded Actu	ual Dimensi	ons		
	Dim	Min	Max	Go/No Go Gauge	1	2	3	4	Ву	Date
	Α	0.100	0.140	-	0.121	6:121	0.188	0.121		
	В	0.100	0.140	a	0.138	0.125	0.128	0.125		
-	С	1.125	1.145	•	1.135	1.135	1.134	1.134		
	D	0.615	0.685	<	0.685	0.680	0.630	0.630		
	E	0.240	0.260		0.253	6.254	0.253	0.253		
	F	1.313	1.343	•	1.325	1.328	1.326	1.336		
	G	0.210	0.230	•	0.220	6.223	0.222	6.222		
	Н	0.100	0.180	-	0.130	6.140	0.140	0.140		
	1	2.470	2.510		2.493	2.495	2.493	2.493		
	J	1.565	1.585		1.574	1.573	1.572	1.572		
	K	0.235	0.240		1.237	0.238	0.237	0.237		
ĺ	L	0.100	0.120		0.115	0:115	0.113	0.114		
	М	0.990	1.010	ر	1.000	1.002	1.063	1.001		
	N	0.510	0.515		0.504	0.512	0.572	0.57.2		
	0	5.990	6.010	•	6.000	5.999	6.0001	6.00)		
	Р	1.245	1.255		1.250	1.250	1.250	1.250		
	Q	2.495	2.505		2.500	2.500	2.506	2,500		
	R	0.313	0.318		-0.314	A. 314	0.314	8.314		
036 or	S	<del>س-313</del> ب0	0.318		0:320	0.320	0.320	0.320		
	T	2.495	2.505		2.500	2500	2,500	2.506		+
P06.11.10	U	1.357	1.367		1.361	1.362	1.361	1.361		
106.11.10	V	0.787	0.807		0.79%	0.800	0.799	6,797	`.	
	W	0.540	0.560		0.548	6.550	0.550	0.550		
	Х	1.674	1.684	-	1.678	1.678	1.678	1.678		
	Υ	0.257	0.262	••	0.258	0.258	0.258	0.258		
	Z	0.912	0.932	-	0.918	0.917	0.921	0.921		
	AA	0.490	0.510		0.50b	0.502	0.501	6-501		
	AB									
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Measured by:	me	Audited by	is _	4
Date:	06/11/22	Date:	06/1	1/23

Rev	Date	Change	Revised by	Approved
Α		New Issue	RF	
В	99.04.19	Incorporated DSI 9095, DSI 9102 & DSI 9122 Rev. A	RF	
С	99.11.10	Added Dim. R-T	RF	
D	02.12.12	Reformat; Added Dim. U-W & DT8683, DT8686	KJ/RF	21
E	06.07.05	Revised per drawing revision C	KJ/JLM 🚓	
			- ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	//

DART AEROSPACE LTD	Work Order:	29389
Description: 206 Saddle, Outboard, Right side	Part Number:	D2665-2
Inspection Dwg: D2665 Rev. C		Page 1 of 1

Inspect dimensions highlighted on inspection sheet drawing D2665 Rev. C and record below:

				Re	corded Actu	ıal Dimensi	ons		
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	Ву	Date
Α	0.100	0.140		0.119	0.122	0:119	0.119		
В	0.100	0.140		0.128	8.127	0.128	0.127		
C	1.125	1.145		1.134	1.135	1.135	1.133		
D	0.615	0.685		0.682	0.682	0.680	0.680		
E	0.240	0.260		0.254	0.253	0.254	0.253		
F	1.313	1.343		1.328	1.331	1.329	1.328		
G	0.210	0.230		0,223	0.223	0.222	8.223		
Н	0.100	0.180	_	8-146	0.138	0.137	0.140		
ï	2.470	2.510		2,493	2.493	2.493	2.493		
J	1.565	1.585		1.572	1.572	1.572	1.571		
K	0.235	0.240		0.238	0.238	0.238	0.238		
L	0.100	0.120		0.113	0.112	0.114	0.115		
M	0.990	1.010		1.002	1.104	1.003	1.003		
N	0.510	0.515		0.511	0.511	0.512	0.572		
0	5.990	6.010		6.000	6.000	5.999	6.000		
Р	1.245	1.255		1.250	1.250	1,250	1.250		
Q	2.495	2.505		2,500	2.306	2.500	2.500		
R	0.313-	0.30		B. 314	0,314	0,314	0.314		
S	0.313	0.318		0.320	0,320	6,320	0,320		
Т	2.495	2.505		2,500	2.500	2.500	2.500		
U	1.357	1.367		1.362	1.362	1.36.2	1.362		
V	0.787	0.807		0.797	0.746	0.796	B. 797		
W	0.540	0.560		0.550	0.550	0.550	0.549		
X	1.674	1.684		1.679	1.679	1.679	1.679		
Υ	0.257	0.262		0.258	0.258	0.258	0,258		
Z	0.912	0.932		0.921	0.921	0.922	6.923		
AA	0.490	0.510	· · · · · · · · · · · · · · · · · · ·	0.503	0.501	0.501	0.500		
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Date:	06/11/22	Date:	06/11/23	

Rev	Date	Change	Revised by	Approved
Α		New Issue	RF	
В	99.04.19	Incorporated DSI 9095, DSI 9102 & DSI 9122 Rev. A	RF	
С	99.11.10	Added Dim. R-T	RF	
D	02.12.12	Reformat; Added Dim. U-W & DT8683, DT8686	KJ/RF	
E.	06.07.05	Revised per drawing revision C	KJ/JLM 😽	411

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DART AEROSPACE LTD	Work Order:	29389
Description: 206 Saddle, Outboard, Right side	Part Number:	D2665-2
Inspection Dwg: D2665 Rev. C		Page 1 of 1

Inspect dimensions highlighted on inspection sheet drawing D2665 Rev. C and record below:

				Recorded Actual Dimensions					
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	Ву	Date
Α	0.100	0.140		0.119	0.119	0.021	0.121		
В	0.100	0.140		0.128	0.129	0.128	0.128		
С	1.125	1.145		1.134	1.134	1.135	1.135		
D	0.615	0.685		0.682	0,680	0,680	0.680		
E	0.240	0.260		6.253	0.253	0.253	0.253		
F	1.313	1.343		1.328	1.328	1.328	1.328		
G	0.210	0.230		0.222	0.222	0.222	0.222		
Н	0.100	0.180		0,146	0.140	0.140	0.140		-
i	2.470	2.510		2.493	2.493	2,493	A. 493		
J	1.565	1.585		1.572	1.573	1.572	7.573		
K	0.235	0.240		0.238	0.238	0.238	0.238		
L	0.100	0.120		0:115	0.114	0,114	0.114		
М	0.990	1.010		1.003	1.003	1.003	1.003		
N	0.510	0.515		6.512	0.512	0,57.2	0.512		
0	5.990	6.010		6.000		6.001	6.000		
Р	1.245	1.255		1.250	1.250	1.250	1.250		
Q	2.495	2.505		2,500	2,506	2.500	2.500		
R	0.313	0.318		0.314	D.314	1.314	0.314		
S	0.913	<del>-0.318</del>		0.320	0.320	0.321	0,320		
Т	2.495	2.505		2.500	2.506	2.500	2.506		
U	1.357	1.367		1.362	1.362	1.362	1.362		
V	0.787	0.807		0.797	0.795	0.49%	0.797		
W	0.540	0.560		0.550	0.549	6.550	0.550		
Х	1.674	1.684		1.679	1.679	1.679	1.679		
Υ	0.257	0.262		0.258	0.258	0.25%	0.258		
Z	0.912	0.932		0.921	0.921	0.927	0.422		
AA	0.490	0.510		0.50)	0.501	6.501	0.500		
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Measured by:

Date: 06/11/22 Audited by Date: 06/11/23

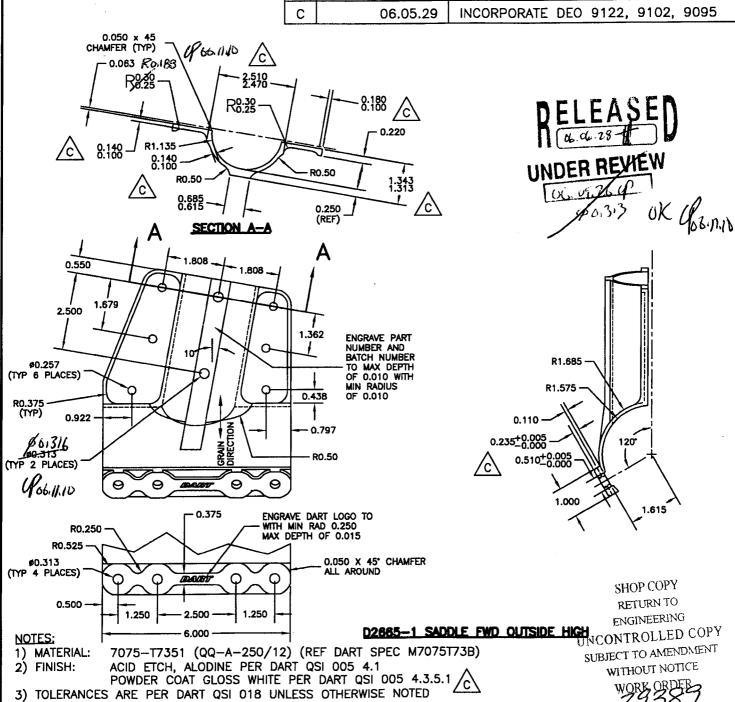
Date	Change	Revised by	Approved
	New Issue	RF	
99.04.19	Incorporated DSI 9095, DSI 9102 & DSI 9122 Rev. A	RF	
99.11.10	Added Dim. R-T	RF	
02.12.12	Reformat; Added Dim. U-W & DT8683, DT8686	KJ/RF	21
		KJ/JLM	
	99.04.19 99.11.10 02.12.12		New Issue   RF



4) BREAK ALL SHARP EDGES 0.010 TO 0.020 5) D2665-1 SHOWN (D2665-2 IS OPPOSITE)

6) ALL DIMENSIONS ARE IN INCHES

1	DESIG	N al	DRAWN BY	DART AEROSPACE USA, INC.
		#	CB	PORT HADLOCK, WA
	CHECK	ŒD	APPROVED M	DRAWING NO. REV. C
		上		D2665 SHEET 1 OF 1
	DATE		<u> </u>	TITLE SCALE
	06.0	5.29		SADDLE FWD OUTSIDE HIGH 1:3
	Α		97.03.25	NEW ISSUE
	В		97.07.11	ANGLE AND NOTES ADDED
	С		06.05.29	INCORPORATE DEO 9122, 9102, 9095



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## **Chris Provencal**

From: David Shepherd [dshepherd@dartaero.com]

Sent: October 19, 2006 3:31 PM

To: 'S Shahbazian'

Cc: 'Provencal, Chris'; 'Charbonneau, Eric'

Subject: RE: Radius dimension on the saddle

Change the drawings. I guess we will also change the 0.313 crosstube hole dimensions as well. See D2661 to D2668 as well as D2932 to D2933.

David

From: S Shahbazian [mailto:sshahbazian@dartaero.com]

Sent: Thursday, October 19, 2006 1:16 PM

To: Shepherd, David

**Cc:** Provencal, Chris; Charbonneau, Eric **Subject:** Radius dimension on the saddle

## Dave,

On attach saddle drawing, according to Eric the marked-up radius that reads 0.30 and 0.25, should be 0.188 since the tooling has been changed long time ago, and apparently they have been machining those radiuses to 0.188 for a while. Do you see a problem with that? if not I will go ahead and change the drawing to reflect the changes.

## Serge

No virus found in this incoming message.

Checked by AVG Free Edition.

Version: 7.1.408 / Virus Database: 268.13.7/488 - Release Date: 10/19/2006

No virus found in this outgoing message.

Checked by AVG Free Edition.

Version: 7.1.408 / Virus Database: 268.13.7/488 - Release Date: 10/19/2006

## **Chris Provencal**

From: David Shepherd [dshepherd@dartaero.com]

**Sent:** September 21, 2006 2:58 PM

To: 'Chris Provencal'

Cc: 'C Bell'; 'S Shahbazian'

Subject: RE: D2665 Saddle

This is acceptable.

For some reason, I thought someone was in the process of fixing these drawings (Chris Bell?)

In fact, I may have already signed them.

Please look into it.

David

From: Chris Provencal [mailto:cprovencal@dartaero.com]

Sent: Thursday, September 21, 2006 7:26 AM

To: David Shepherd (David Shepherd)

Subject: D2665 Saddle

David,

The two 0.313 OD saddle-to-crosstube holes, the dwg says 0.313, the folio is evidently calling for a 0.316 drill. The 0.316 is required to fit the part on the tooling, they must have been using 0.316 for some time. Anyhow, they want the drawing changed to 0.316 (I don't see a big problem with that), but for now they need an email to sign of this latest batch as a deviation on the work order. Ultimately this would affect all the 206 saddles. Is 0.316 OD acceptable for the saddle-to-crosstube holes on the D2665 saddles?

Chris

No virus found in this incoming message.

Checked by AVG Free Edition.

Version: 7.1.405 / Virus Database: 268.12.5/451 - Release Date: 9/19/2006

No virus found in this outgoing message.

Checked by AVG Free Edition.

Version: 7.1.405 / Virus Database: 268.12.6/453 - Release Date: 9/20/2006